Refine Search

Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Search Results -

Terms	Documents
L9 and (fluor$ and agonist with antagonist)	136

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L10

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Wednesday, March 07, 2007 **Purge Queries** Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=ADJ		
L10	L9 and (fluor$ and agonist with antagonist)	136	L10
L9	L8 and calcium concentration	223	L9
L8	L6 and (fluorescent or fluorescence) and dye	925	L8
L7	L6 and (fluorescent or fluorescence)	1529	L7
L6	calcium channel	5428	L6
L5	L1 and fluor$	0	L5
L4	l1 and fluorescent	0	L4
L3	l1 and fluorescence	0	L3
L2	L1 and dye	1	L2
L1	5429921.pn.	1	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L3 and (agonist same antagonist same assay same activity same bind$)	166

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
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IBM Technical Disclosure Bulletins

Search: L7

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Wednesday, March 07, 2007 **Purge Queries** Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=ADJ		
L7	L3 and (agonist same antagonist same assay same activity same bind$)	166	L7
L6	L3 and (agonist same antagonist same assay same activity)	346	L6
L5	L3 and (agonist same antagonist same assay)	493	L5
L4	L3 and (agonist same antagonist)	1762	L4
L3	calcium channel or calcium ion channel	5492	L3
L2	calcium channel and (agoninst with antagonist with method)	0	L2
L1	calcium channel and (agoinst with antagonist with method)	0	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L5 and (assay with binding)	1

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
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Search: L10

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Wednesday, March 07, 2007 **Purge Queries** Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L10	L5 and (assay with binding)	1	L10
L9	L5 and binding	1	L9
L8	L5 and (agonist with antagonist with bind)	0	L8
L7	L5 and (agonist with antagonist with binding)	0	L7
L6	L5 and (agonist with antagonist)	1	L6
L5	6528630.pn.	2	L5
L4	L3	0	L4
DB=USPT; PLUR=YES; OP=ADJ			
L3	6320032.pn.	0	L3
DB=USOC; PLUR=YES; OP=ADJ			
L2	6320032.pn.	0	L2
DB=USPT; PLUR=YES; OP=ADJ			
L1	6320032.pn.	0	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
5670113.pn.	1

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L11

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Wednesday, March 07, 2007 Purge Queries Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=ADJ			
L11	5670113.pn.	1	L11
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L10	L5 and (assay with binding)	1	L10
L9	L5 and binding	1	L9
L8	L5 and (agonist with antagonist with bind)	0	L8
L7	L5 and (agonist with antagonist with binding)	0	L7
L6	L5 and (agonist with antagonist)	1	L6
L5	6528630.pn.	2	L5
L4	L3	0	L4
DB=USPT; PLUR=YES; OP=ADJ			
L3	6320032.pn.	0	L3
DB=USOC; PLUR=YES; OP=ADJ			
L2	6320032.pn.	0	L2
DB=USPT; PLUR=YES; OP=ADJ			

L1	6320032.pn.	0	L1

END OF SEARCH HISTORY

L7: Entry 161 of 166 File: USPT Jul 4, 1995

US-PAT-NO: 5429921
DOCUMENT-IDENTIFIER: US 5429921 A

TITLE: Assays for agonists and antagonists of recombinant human calcium channels

DATE-ISSUED: July 4, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Harpold; Michael M.	San Diego	CA		
Ellis; Steven B.	San Diego	CA		
Williams; Mark E.	Carlsbad	CA		
Feldman; Daniel H.	San Diego	CA		
McCue; Ann F.	La Mesa	CA		
Brenner; Robert	Austin	TX		

US-CL-CURRENT: 435/4; 435/69.1, 435/7.2

CLAIMS:

What is claimed is:

1. A method for testing a compound for activity as an agonist or antagonist of a calcium channel, comprising the steps of:

suspending a eukaryotic cell expressing functional, heterologous calcium channels in a solution which contains the compound and an ion or molecule capable of entering the cell through a functional calcium channel;

depolarizing the cell membrane of the cell;

detecting the current flowing into the cell; and

comparing the current thus detected to a current produced by cells in a control experiment; wherein:

the only heterologous ion channels expressed by the cells are calcium channels which comprise one or more subunits;

each heterologously expressed calcium channel subunit has the amino acid sequence of a naturally occurring human calcium channel subunit; and

the heterologous calcium channels comprise at least a heterologous .alpha..sub.1 subunit that is selected from the group consisting of

a VDCC type II (.alpha..sub.1C) subunit having an amino acid sequence comprising the sequence of amino acids set forth in SEQ ID NO: 7,

a VDCC type III (.alpha..sub.1D) subunit having an amino acid sequence comprising the sequence shown as amino acids 11-2161 of SEQ ID NO: 2, and

a calcium channel .alpha..sub.1 subunit encoded by DNA capable of hybridizing under conditions of high stringency with DNA that is complementary to an mRNA transcript present in a human cell and that encodes one of the aforesaid VDCC type II or type III subunits.

2. The method of claim 1, wherein:

the heterologous calcium channels further comprise one or more subunits selected from the group consisting of

an .alpha..sub.2 subunit which is

a protein having the sequence of amino acids set forth as the translation of the DNA shown in SEQ ID NO: 24, or

a calcium channel .alpha..sub.2 subunit encoded by DNA capable of hybridizing under conditions of high stringency with DNA which is complementary to an mRNA transcript present in a human cell and which comprises the sequence of nucleotides shown as nucleotides 1-3273 of SEQ ID NO: 24;

a .beta. subunit which is

a protein having the sequence of amino acids set forth as the translation of the DNA shown in SEQ ID NO: 18,

a protein having an amino acid sequence comprising the sequence of amino acids shown in SEQ ID NO: 23, or

a calcium channel .beta. subunit encoded by DNA capable of hybridizing under conditions of high stringency with DNA which is complementary to an mRNA transcript present in a human cell and which comprises the sequence of nucleotides shown as nucleotides 1-1434 of SEQ ID NO: 18 or encodes the sequence of amino acids shown in SEQ ID NO: 23; and

a .gamma. subunit which is

a protein having an amino acid sequence comprising the sequence of amino acids set forth as the translation of the DNA shown in SEQ ID NO: 29, or

a calcium channel .gamma. subunit encoded by DNA capable of hybridizing under conditions of high stringency with DNA which is complementary to an mRNA transcript present in a human cell and which comprises the sequence of nucleotides shown as nucleotides 1-129 of SEQ ID NO: 29.

3. The method of claim 1, wherein the heterologous .alpha.1 subunit is a VDCC type III (.alpha..sub.1D) subunit.

4. The method of claim 2, wherein the heterologous .alpha..sub.1 subunit is a

VDCC type III (.alpha..sub.1D) subunit.

5. The method of claim 1, wherein the heterologous .alpha..sub.1 subunit is a VDCC type II (.alpha..sub.1C) subunit.

6. The method of claim 2, wherein the heterologous subunit is a VDCC type II (.alpha..sub.1C) subunit.

7. The method of claim 1, further comprising, prior to or simultaneously with the step of suspending the cell in solution with the test compound, contacting the cell with a calcium channel agonist, wherein the compound is tested for activity as an antagonist.

8. The method of claim 2, further comprising, prior to or simultaneously with the step of suspending the cell in solution with the test compound, contacting the cell with a calcium channel agonist, wherein the compound is tested for activity as an antagonist.

9. The method of claim 2, wherein the cell is a mammalian cell and the heterologous calcium channels comprise an .alpha..sub.1 subunit and .beta. subunit.

10. The method of claim 9, wherein the heterologous calcium channels further comprise an .alpha..sub.2 subunit.

11. The method of claim 10, wherein the heterologous calcium channels further comprise a .gamma. subunit.

12. The method of claim 1, wherein the eukaryotic cell is selected from the group consisting of a COS cell, a mouse L cell, a Chinese hamster ovary (CHO) cell, a human embryonic kidney (HEK) cell, and an African green monkey cell.

13. The method of claim 2, wherein the eukaryotic cell is selected from the group consisting of a COS cell, a mouse L cell, a Chinese hamster ovary (CHO) cell, a human embryonic kidney (HEK) cell, and an African green monkey cell.

14. The method of claim 1, wherein the eukaryotic cell is prepared by microinjecting into an amphibian oocyte RNA that is translatable therein into the one or more calcium channel subunits.

15. The method of claim 2, wherein the eukaryotic cell is prepared by microinjecting into an amphibian oocyte RNA that is translatable therein into the one or more calcium channel subunits.

16. The method of claim 14, further comprising, prior to or simultaneously with the step of suspending the cell in solution with the test compound, contacting the cell with a calcium channel agonist, wherein the compound is tested for activity as an antagonist.

17. The method of claim 15, further comprising, prior to or simultaneously with the step of suspending the cell in solution with the test compound, contacting the cell with a calcium channel agonist, wherein the compound is tested for activity as an antagonist.

18. The method of claim 15, wherein the heterologous calcium channels comprise an .alpha..sub.1 subunit and a .beta. subunit.

19. The method of claim 18, wherein the heterologous calcium channels further comprise an .alpha..sub.2 subunit.

20. The method of claim 19, wherein the heterologous calcium channels further comprise a .gamma. subunit.

21. The method of claim 15, wherein the heterologous calcium channels comprise an .alpha..sub.1 subunit and an .alpha..sub.2 subunit.

22. The method of any of claims 1, 2, or 14, wherein, prior to the depolarization step, the cell is maintained at a holding potential that substantially inactivates calcium channels that are endogenous to the cell.

23. The method of claim 15, wherein, prior to the depolarization step, the cell is maintained at a holding potential that substantially inactivates calcium channels that are endogenous to the cell.

24. The method of claim 22, wherein the holding potential is -50 mV.

25. The method of claim 23, wherein the holding potential is -50 mV.

26. The method of claim 1, wherein the control experiment uses the same or a substantially identical cell but is performed in the absence of the test compound.

27. The method of claim 1, wherein the control experiment (i) uses a cell that is substantially identical to the suspended cell but that does not express the heterologous channels, and (ii) is performed in the presence of the test compound.

28. The method of claim 2, wherein the control experiment uses the same or a substantially identical cell but is performed in the absence of the test compound.

29. The method of claim 2, wherein the control experiment (i) uses a cell that is substantially identical to the suspended cell but that does not express the heterologous channels, and (ii) is performed in the presence of the test compound.

Previous Doc Next Doc Go to Doc#